

# United States Patent and Trademark Office

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UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231 www.uspto.gov

# NOTICE OF ALLOWANCE AND FEE(S) DUE

7590

07/18/2002

Welsh & Katz, Ltd. Jon P. Christensen 22nd Floor 120 South Riverside Plaza Chicago, IL 60606

EXA	AMINER
NGUY	EN, SON T
ART UNIT	CLASS-SUBCLASS
3643	047-058100

DATE MAILED: 07/18/2002

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,756	05/04/2001	Oberto Airaudi	6957-82529	2637

TITLE OF INVENTION: ELECTRONIC DEVICE TO DETECT AND DIRECT BIOLOGICAL MICROVARIATIONS IN A LIVING ORGANISM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1280	\$300	\$1580	10/18/2002

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED.</u> THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

# **HOW TO REPLY TO THIS NOTICE:**

I. Review the SMALL ENTITY status shown above. If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

B. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

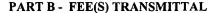
B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.

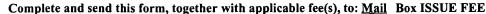
☐ Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.





**Commissioner for Patents** Washington, D.C. 20231

(703)746-4000 <u>Fax</u>

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for

maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block I) Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission. Welsh & Katz, Ltd. Certificate of Mailing or Transmission

Jon P. Christensen 22nd Floor 120 South Riverside Plaza Chicago, IL 60606

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above, or being facsimile transmitted to the USPTO, on the date indicated below. (Depositor's name) (Signature)

(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,756	05/04/2001	Oberto Airaudi	6957-82529	2637

TITLE OF INVENTION: ELECTRONIC DEVICE TO DETECT AND DIRECT BIOLOGICAL MICROVARIATIONS IN A LIVING ORGANISM

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nonprovisional	NO	\$1280	\$300	\$1580	10/18/2002
EXAMI	NER	ART UNIT	CLASS-SUBCLASS		
NGUYEN	, SON T	3643	047-058100		
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).  Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.  "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.		2. For printing on the patent the names of up to 3 register or agents OR, alternatively, single firm (having as a m attorney or agent) and the registered patent attorneys or is listed, no name will be printed.	red patent attorneys (2) the name of a tember a registered names of up to 2 agents. If no name		

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (B) RESIDENCE: (CITY and STATE OR COUNTRY) (A) NAME OF ASSIGNEE

Please check the appropriate assignee category or ca	tegories (will not be printed on the patent)	individual	□ corporation or other private group entity □ govern	nment	
4a. The following fee(s) are enclosed:	4b. Payment of Fee(s):				
☐ Issue Fee	☐ A check in the amount	of the fee(s) is en	closed.		
□ Publication Fee	Payment by credit card	☐ Payment by credit card. Form PTO-2038 is attached.			
☐ Advance Order - # of Copies	The Commissioner is h Deposit Account Number	☐ The Commissioner is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number(enclose an extra copy of this form).			
Commissioner for Patents is requested to apply the I	ssue Fee and Publication Fee (if any) or to re-	apply any previo	usly paid issue fee to the application identified above.		
(Authorized Signature)	(Date)				

NOTE; The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,756 05/04/2001		Oberto Airaudi	6957-82529	2637
7:	590 07/18/2002		EXAMIN	ER
Welsh & Katz, L			NGUYEN,	SON T
22nd Floor			ART UNIT	PAPER NUMBER
120 South Riversio			3643	
Chicago, IL 60606			DATE MAILED: 07/18/2002	

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The patent term adjustment to date is 14 days. If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the term adjustment will be 14 days.

If a continued prosecution application (CPA) was filed in the above-identified application, the filing date that determines patent term adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system. (http://pair.uspto.gov)



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09/849,756	05/04/2001	Oberto Airaudi	6957-82529	2637
75	90 07/18/2002		EXAMIN	ER
Welsh & Katz, L			NGUYEN,	SON T
Jon P. Christensen		_		
22nd Floor		L	ART UNIT	PAPER NUMBER
120 South Riversid	e Plaza	_	3643	
Chicago, IL 60606		_		
LINITED STATES		D.	ATE MAILED: 07/18/2002	

# Notice of Fee Increase on October 1, 2002

If a reply to a "Notice of Allowance and Fee(s) Due" is filed in the Office on or after October 1, 2002, then the amount due may be higher than that set forth in the "Notice of Allowance and Fee(s) Due" since there will be an increase in fees effective on October 1, 2002. See Revision of Patent and Trademark Fees for Fiscal Year 2003; Notice of Proposed Rulemaking, 67 Fed. Reg. 30634, 30636 (May 7, 2002). Although a change to the amount of the publication fee is not currently proposed for October 2002, if the issue fee or publication fee is to be paid on or after October 1, 2002, applicant should check the USPTO web site for the current fees before submitting the payment. The USPTO Internet address for the fee schedule is: <a href="http://www.uspto.gov/main/howtofees.htm">http://www.uspto.gov/main/howtofees.htm</a>.

If the issue fee paid is the amount shown on the "Notice of Allowance and Fee(s) Due," but not the correct amount in view of the fee increase, a "Notice to Pay Balance of Issue Fee" will be mailed to applicant. In order to avoid processing delays associated with mailing of a "Notice to Pay Balance of Issue Fee," if the response to the Notice of Allowance and Fee(s) due form is to be filed on or after October 1, 2002 (or mailed with a certificate of mailing on or after October 1, 2002), the issue fee paid should be the fee that is required at the time the fee is paid. If the issue fee was previously paid, and the response to the "Notice of Allowance and Fee(s) Due" includes a request to apply a previously-paid issue fee to the issue fee now due, then the difference between the issue fee amount at the time the response is filed and the previously paid issue fee should be paid. See Manual of Patent Examining Procedure, Section 1308.01 (Eighth Edition, August 2001).

Effective October 1, 2002, 37 CFR 1.18 is proposed to be revised to change the patent issue fees as set forth below. As stated above, the final fees may be a different amount, and applicant should check the web site given above when paying the fee.

(a) Issue fee for issuing each original or reissue patent, except a design or plant patent:

By a small entity (Sec. 1.27(a))--\$655.00 By other than a small entity--\$1,310.00

(b) Issue fee for issuing a design patent:

By a small entity (Sec. 1.27(a))--\$235.00 By other than a small entity--\$470.00

(c) Issue fee for issuing a plant patent:

By a small entity (Sec. 1.27(a))--\$315.00 By other than a small entity--\$630.00

Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

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,	Application No.	Applicant(s)	T
Notice of Allowability	09/849,756	AIRAUDI, OBERTO	<u>/</u>
<b>,</b>	Examiner	Art Unit	
	Son T. Nguyen	3643	-
The MAILING DATE of this communication apperature All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this a or other appropriate communication IGHTS. This application is subject	pplication. If not included on will be mailed in due course. <b>THIS</b>	<b>š</b> itive
1. This communication is responsive to <u>5/04/01</u> .			
2. The allowed claim(s) is/are 1-21.			
<ul> <li>3.  The drawings filed on <u>04 May 2001</u> are accepted by the E.</li> <li>4.  Acknowledgment is made of a claim for foreign priority und</li> <li>a)  All b)  Some* c)  None of the:</li> </ul>			
<ol> <li>Certified copies of the priority documents have</li> </ol>	e been received.		
2. Certified copies of the priority documents have			
<ol> <li>Copies of the certified copies of the priority do International Bureau (PCT Rule 17.2(a)).</li> </ol>	cuments have been received in thi	s national stage application from the	
* Certified copies not received:  5. Acknowledgment is made of a claim for domestic priority u	nder 35 I S.C. & 110(e) (to a provi	sional application)	
(a) The translation of the foreign language provisional a		sional application).	
6. $\boxtimes$ Acknowledgment is made of a claim for domestic priority u			
Applicant has THREE MONTHS FROM THE "MAILING DATE" of below. Failure to timely comply will result in ABANDONMENT of			
7. A SUBSTITUTE OATH OR DECLARATION must be submINFORMAL PATENT APPLICATION (PTO-152) which gives reas			
<ul> <li>8.  CORRECTED DRAWINGS must be submitted.</li> <li>(a)  including changes required by the Notice of Draftsper</li> <li>1)  hereto or 2)  to Paper No</li> <li>(b)  including changes required by the proposed drawing of including changes required by the attached Examiner</li> </ul>	correction filed, which has	been approved by the Examiner.	
Identifying indicia such as the application number (see 37 CFR 1 of each sheet. The drawings should be filed as a separate paper			
9. DEPOSIT OF and/or INFORMATION about the depo attached Examiner's comment regarding REQUIREMENT FOR T	sit of BIOLOGICAL MATERIAL HE DEPOSIT OF BIOLOGICAL M	must be submitted. Note the ATERIAL.	
Attachment(s)			
<ul> <li>1⊠ Notice of References Cited (PTO-892)</li> <li>3□ Notice of Draftperson's Patent Drawing Review (PTO-948)</li> <li>5□ Information Disclosure Statements (PTO-1449), Paper No</li> <li>7□ Examiner's Comment Regarding Requirement for Deposit of Biological Material</li> </ul>	4∐ Interview Sumi 6⊠ Examiner's Am	mal Patent Application (PTO-152) mary (PTO-413), Paper No nendment/Comment atement of Reasons for Allowance	
U.S. Delegat and Trademody Office.		PETER M. POON RVISORY PATENT EXAMINER CHNOLOGY CENTER 3500	

Application/Control Number: 09/849,756

**Art Unit: 3643** 

### **DETAILED ACTION**

# **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Jon Christensen, on 7/12/02.

The application has been amended as follows: claim 15, line 4, replace "adapted to provide" with ---providing---; in line 7, replace "adapted to provide" with ---providing---; in line 9, replace "adapted to subtract" with ---subtracting---; in line 12, replace "adapted to provide" with ---providing---. In the specification, page 2, line 18, insert---, 7a-c--- after "7".

- 2. Claims 1-21 are allowed.
- 3. The following is an examiner's statement of reasons for allowance: the prior art of record fails to disclose or render obvious a device to generate music tones by obtaining micro-voltage across a varying resistance in a living plant and using an MIDI sound generator to generate the musical tones.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Application/Control Number: 09/849,756 Page 3

Art Unit: 3643

- 4. The following prior arts are made of record to provide the best available relevant examples of a device or method of using microvoltage across varying resistance of an organism to generate music: Ayers teaches detecting bioelectrical frequencies emitted by a living organism and converting the signal into auditory or visual signal for studies of the organism. Sidaway et al. teach placing plants at an electrical potential different to improve plants' growth. Levengood teaches means of testing seeds which involves using electrical potential on the seeds to separate the seeds based on their current output. Li teaches using MIDI sound generator to produce sound in an environment where plants are located to enhance their growth or cure them of diseases. Berg and Bittman et al. both teaches allowing an individual to express themselves through creative manner such as producing music by using biofeedback signals. Knispel et al. teach translating EEG into music. Komatsu teaches enhancing mushroom cultivation by applying electrical-mechanical vibration transducer to generate vibrations through signals such as music.
- 5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son T. Nguyen whose telephone number is (703) 305-0765. The examiner can normally be reached on Monday Friday from 9:00 a.m. to 5:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon, can be reached at (703) 308-2574. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Application/Control Number: 09/849,756

Art Unit: 3643

Son T. Nguyen, STN Patent Examiner, GAU 3643 July 12, 2002

PETER M. POON

SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 3600